

REMARKS

Claims 1-32 are pending in the present application. Reconsideration of the claims is respectfully requested.

I. 35 U.S.C. §102, anticipation

The Examiner has rejected claims 1-4, 7, 9-14, 17, 19-24, 27, 29, 31-32 under 35 U.S.C. §102(b) as being anticipated by Loder (US Patent No. 5,748,720). This rejection is respectfully traversed.

In rejecting the claims, the Examiner writes:

Regarding claims 1, 11, 21, 29, 31, 32, Loder teaches a mobile unit comprising memory and a storage medium, wherein the storage medium includes computer program code configured to perform the steps: retrieving from memory (e.g., SIM) an available amount of time that the mobile unit is authorized to utilize wireless services with the mobile unit (e.g., an ability to hold a record of amount of funds prepaid for at the point of the sale is incorporated within a subscriber identity module, SIM – see column 3, lines 26-28); allowing the mobile unit to utilize wireless services for a first time period, the first time period being less than or equal to the available amount; and deducting the first time period from the available amount (e.g., this payment record will progressively decrease [sic] as services of the network are used according to tariff rate which is either preprogrammed into the SIM or sent by the network – see column 3, lines 31-34).

While there is some superficial similarity between Loder and the claimed invention, a close reading of Loder reveals that Loder does not teach the limitations of the claimed invention and in fact teaches away from the invention.

Specifically, Loder teaches tracking and adjusting a balance of available funds on a SIM card. In contrast, independent claims 1, 11, 21, 29 and 31 of the present invention all specifically recite tracking a balance of available time units, not funds:

1. A mobile unit comprising memory and a storage medium, wherein the storage medium includes computer program code configured to perform the steps:
 - retrieving from memory an available amount of time that the mobile unit is authorized to utilize wireless services with the mobile unit;
 - allowing the mobile unit to utilize wireless services for a first time period, the first time period being less than or equal to the available amount; and

deducting the first time period from the available amount.

11. A mobile unit comprising memory and a storage medium, wherein the storage medium includes computer program code configured to perform the steps:

- storing in memory a first amount of flat-rate time units that the mobile unit is pre-authorized to utilize;
- receiving a first indication that a user is attempting to utilize the mobile unit to connect to a wireless service provider;
- retrieving the first amount of flat-rate time units from memory;
- determining whether the first amount of flat-rate time units is above a first limit; and
- upon determining the first amount of flat-rate time units is above the first limit, allowing the mobile unit to connect to the wireless service provider.

21. A mobile unit comprising memory and a storage medium, wherein the storage medium includes computer program code configured to perform the steps:

- retrieving from memory a first amount of flat-rate minutes that the mobile unit is pre-authorized to utilize wireless services;
- monitoring a first time period that the mobile unit utilizes wireless services; and
- causing wireless services to be discontinued when the first time period is greater than or equal to the first amount of flat-rate minutes.

29. A prepaid application system having a storage medium, the storage medium including computer program code configured to perform the steps of:

- receiving an indication that a user of a mobile device has prepaid for a first amount of flat-rate minutes of wireless services; and
- notifying the mobile unit that the mobile unit is authorized to utilize the first amount of flat-rate minutes of wireless services.

31. A prepaid application system having a storage medium, the storage medium including computer program code configured to perform the steps of:

- receiving an indication that a mobile unit has utilized a first amount of time of wireless services;
- determining whether the first amount of time is greater than or equal to a prepaid amount of flat-rate time; and
- deactivating the mobile unit if the first amount of time is greater than or equal to the prepaid amount of flat-rate time.

The process taught in Loder involves addition steps and control signals from the wireless network that are not required by the limitations of present invention. None of the embodiments taught in Loder involve maintaining a balance of available time units. Instead, Loder maintains a balance of funds on a SIM card as described in the sections cited by the Examiner:

According to the invention, an ability to hold a record of amount of funds prepaid for at the point of the sale is incorporated within a subscriber identity module, SIM. This prepaid amount will ultimately go back to the network operator. This payment record will progressively decrease [sic] as services of the network are used according to tariff rate which is either preprogrammed into the SIM or sent by the network. This payment record may also be displayed on the mobile equipment. (col. 3, lines 26-34)

In Loder, the decision whether or not to authorize and maintain a call is specifically based on the remaining available funds, not time units:

The SIM monitors the remaining value of the payment and, when the value of the payment reaches a predetermined minimum value, prevents further outgoing (mobile originating) or incoming (mobile terminating) calls from or to the mobile station, respectively. This blocking of the mobile station may be affected by a specific blocking command outputted to a mobile equipment part of the mobile station, or by disabling network operation functions, such as authentication algorithms, in the SIM. In one embodiment of the invention, the network transmits charging information messages and requires an acknowledgement from the mobile station. Upon receiving the charging information message, the SIM checks the remaining value of the payment and prevents the transmission of the acknowledgement in response to the value not being sufficient for the call. Not receiving the acknowledgement within a preset time, the network terminates the ongoing call or set-up procedure. If the remaining value of the payment is sufficient for a call, the acknowledgement will be transmitted, and the the [sic] call set-up procedure or the call will be continued normally. (col. 3, lines 34-57)

According to the present invention, an ability to hold a record of the amount of funds prepaid for at the point of sale is incorporated within the SIM. The amount of the prepaid funds is gradually decreased during the use of the services of the radio system, and further calls are prevented. For example, in a GSM system, an existing SIM is modified so that it comprises within its security an electrically alterable memory location. This may be implemented e.g., in an EPROM or FLASH memory circuit. This memory circuit can then have a number representing the

amount of prepaid funds programmed into it via a programming device. The programming may be performed at the point of sale location or during manufacture. A SIM card may be reprogrammable (reusable) or one time programmable (disposable). (col. 5, lines 41-55)

Tracking and maintenance a balance of funds on the SIM card requires additional process steps and resources that are not necessary using the present invention. The tracking of the available funds balance in Loder requires the process of converting elapsed time into a specific monetary charge to be deducted from the funds balance stored in memory according to a specific tariff rate (see col. 6, lines 58-6, Fig. 4 step 48, col. 7, lines 25-29, Fig. 5 step 59, col. 8, lines 11-15, Fig. 6 step 69). Because the invention recited in claims 1, 11, 21, 29, and 31 directly track and maintain a balance of time units and not available funds, there is no need to devote resources in the mobile unit to perform this calculation.

Furthermore, the calculation of funds depletion in Loder depends of the transmission of “e” parameters to the mobile unit. These “e” parameters include advice of charge information, time tariff rates, and special “e” parameters that require acknowledgement from the mobile unit. The present invention eliminates the need for such control signals, thereby reducing the amount of network resources required to execute and manage a call.

Loder does not teach the limitations of claim 32, and in fact teaches away from the limitations of claim 32, which recite:

32. A prepaid application system having a storage medium, the storage medium including computer program code configured to perform the steps of:

receiving an indication that a user of a mobile device has prepaid for wireless services; and
notifying a plurality of wireless service providers that the mobile device is authorized to utilize the wireless service provider.

Instead of facilitating access across multiple wireless service providers, the Loder invention moves in the opposite direction by providing users with temporary access to a local wireless service provider without having to establish an account with them or establish roaming agreements between service providers:

The user of the prepaid SIM of the present invention has not been processed or registered on the network operators billing data bases, but still has an access to a network because of having prepaid for all call charges. Hence, details of address and credit worthiness of the user are not needed. As a result, the network operator gains short term customers without extensive credit checking and billing operations. Difficulty in obtaining roaming agreement between different network operators will not stop the universality of the global radio system, as GSM, since prepaid SIMs could be available with rental mobile equipments to give travellers immediate access to the new country's network. The invention also allows the SIM holders to know their spending limit, especially when in a new country with unknown charging rates. The invention also allows tourists to hire a mobile phone and a prepaid SIM in very little time and in more remote locations. (col. 3, line 65 – col. 4, line 14)

There is no teach in Loder regarding the authorizing a prepaid user account across a plurality of wireless service providers.

Because claims 2-4, 7, 9-10, 12-14, 17, 19-20, 22-24 and 27 depend from claims 1, 11, and 21, respectively, they are distinguished from Loder for the reasons set forth above.

Therefore it is respectfully asserted that the rejection of claims 1-4, 7, 9-14, 17, 19-24, 27, 29, 31-32 under 35 U.S.C. §102 has been overcome and should be withdrawn.

II. 35 U.S.C. §103(a), obviousness

The Examiner has rejected claims 5, 15 and 25 under 35 USC §103(a) as being unpatentable over Loder in view of Doran et al. (US Patent Application No. 2006/0069642). This rejection is respectfully traversed.

Because claims 5, 15 and 25 depend from claims 1, 11 and 21, respectively, they are distinguished from Loder and Doran for the reasons set for above. Both Loder and Doran teach the addition of monetary value to a funds balance, whereas claims 5, 15 and 25 claim the addition of time units to the balance, not funds.

The Examiner has rejected claims 6, 16 and 26 under 35 USC §103(a) as being unpatentable over Loder in view of Doran and in further view of Laybourn et al (US Patent Application No. 2003/0008634). This rejection is also respectfully traversed.

Because claims 6, 16 and 26 depend from claims 1, 11 and 21, respectively, they are distinguished from Loder, Doran and Laybourn for the reasons set for above. Claims

6, 16 and 26 cover the addition of time units, not monetary units as taught in Loder, Doran and Laybourn.

The Examiner has rejected claims 8, 18 and 28 under 35 USC §103(a) as being unpatentable over Loder. This rejection is respectfully traversed.

Because claims 8, 18 and 28 depend from claims 1, 11 and 21, respectively, they are distinguished from Loder for the reasons set for above.

The Examiner has rejected claim 30 under 35 USC §103(a) as being unpatentable over Loder in view of Laybourn. This rejection is also respectfully traversed.

Because claim 30 depends from claim 29 it is distinguished from Loder and Laybourn for the reasons set for above.

Therefore, it is respectfully urged that the rejection of claims 5, 6, 8, 15, 16, 18, 25, 26, 28 and 30 under 35 U.S.C. §103 has been overcome and should be withdrawn.

III. Response to Arguments

In response to the above arguments, the Examiner writes:

In the remarks, the applicant submitted that Loder doesn't teach tracking a balance of available time units. The examiner responds that Loder teaches tracking and adjusting a balance of available funds on a SIM card (see col. 3, lines 26-34). It's inherent that to adjust the balance of available funds, the time units have to be tracked.

The Applicants respectfully disagree with the Examiner's interpretation of Loder's teachings. The present invention includes not merely tracking of time units but storing a balance of available time units in memory. Loder does teach tracking elapsed time units using a call duration timer. However, Loder does not teach or suggest storing and maintaining a balance of available time units, which requires memory resources separate from the timer.

Loder only teaches storing a balance of funds, not time units. Maintaining the funds balance requires converting the elapsed time tracked by the timer into a specific monetary charge to be deducted from the available funds balance stored in memory. As explained above, Loder relies on several "e" parameters including advice of charge

information, time tariff rates and outside control signals in order to make this calculation from elapsed time units to monetary units. After this monetary value is calculated, it is deducted from the balance of funds, and a new funds balance is written into memory, not a time unit balance.

Therefore, while the adjustment of the funds balance in Loder inherently requires the tracking of time units with a call duration timer, it does not inherently involve storing a time unit balance in memory. Doing so would require memory resources in addition to those used for storing the funds balance data, which is taught nowhere in Loder.

Conclusion

It is respectfully urged that the subject application is now in condition for allowance.

The examiner is invited to call the undersigned at the below-listed telephone number if in the opinion of the examiner such a telephone conference would expedite or aid the prosecution and examination of this application.

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Respectfully submitted,



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